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10/597,876

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Jacques Sagne

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EXAMINER

BYRD JR., JOHN B

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/597,876 | Applicant(s) SAGNE ET AL. | |
| | Examiner JOHN B. BYRD JR. | Art Unit 2617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>8/10/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 34, 35, 37-40, 42, 49, 50-53, and 60-63 are rejected under 35

U.S.C. 102(a) as being anticipated by *Choi et al* (WO 2004/064342 A1) (hereinafter *Cho'342*).

Regarding **claim 34**, *Choi'342* discloses a method in a radio access network of handling the mobility of a multimedia service joined mobile terminal in a cell group location state, in which state the location of the mobile terminal is stored at cell group level in a context of a radio network controller functioning as a serving radio network controller (SRNC) for the mobile terminal (=see page 6, lines 31-34), comprising the steps of:

performing an information transfer at a first trigger event via an Iur-interface between a serving radio network controller (SRNC) and all radio network controllers

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controlling at least one cell in a first cell group and being potential drift radio network controllers (DRNCs) for the mobile terminal, wherein the information transfer step comprises the further steps of sending, by the SRNC, a multimedia service attach requesting message to the potential DRNCs (=see page 9, lines 15-19, wherein the SRNC communicates with “a RNC of the target cell” which reads on the DRNC),

the multimedia service attach requesting message comprising context information for the mobile terminal, the context information including multimedia service information (=see page 9, lines 15-19, wherein the “MBMS Connection Request” reads on the multimedia service attach request message; and Fig.4); and

creating and storing, by the potential DRNCs, a context for the mobile terminal based on the received message (=see page 10, lines 27-29, “completes the relevant configuration” reads on creating and storing).

Regarding **claim 35**, *Choi*'342 discloses a method according to claim 34, wherein the transferred context information comprises the identity of the joined multimedia service, the identity of the cell group, the temporary identity of the mobile terminal within the network, and the identity of the mobile terminal (=see page 9, lines 15-19).

Regarding **claim 37**, *Choi*'342 discloses a method according to claim 34, wherein the trigger event is the SRNC receiving a cell group updating message from the mobile terminal (=see page 9, lines 9-19).

Regarding **claim 38**, *Choi*'342 discloses a method according to claim 37, further comprising the steps of:

sending a multimedia service detach requesting message from the SRNC to all potential DRNCs in the previous cell group, if the new cell group comprises only cells controlled by new RNCs (=see page 9, lines 15-19); and

deleting, by the potential DRNCs in the previous cell group, the stored context of the mobile terminal (=see page 11, lines 5-7).

Regarding **claim 39**, *Choi*'342 discloses a method according to claim 34, wherein the trigger event is the mobile terminal transiting into the cell group location state from any other state (=see page 11, lines 9-16).

Regarding **claim 40**, *Choi*'342 discloses a method according to claim 34, wherein the trigger event is the SRNC receiving a notification from the core network of a start of a multimedia service session (=see page 5, lines 10-19, wherein the "Survey Report" reads on notification).

Regarding **claim 42**, *Choi*'342 discloses a method according to claim 34, wherein the multimedia service context comprises the identity of the multimedia service and the temporary identity of the mobile terminal within the radio access network (=see page 8, lines 14-16).

Regarding **claim 49**, *Choi*'342 discloses a method according to claim 34, wherein the multimedia service is a Multimedia Broadcasting/Multicasting Service (MBMS), according to the 3GPP standard (=see page 8, lines 7-9).

Regarding **claim 50**, *Choi*'342 discloses a method according to claim 34, wherein the multimedia service attach requesting message is an MBMS ATTACH REQUEST, according to the 3GPP standard (=see page 8, lines 20-23, wherein the "MBMS Connection request" reads on the MBMS ATTACH REQUEST).

Regarding **claim 51**, *Choi*'342 discloses a radio network controller in a radio access network functioning as a serving radio network controller (SRNC) for a multimedia service joined mobile terminal in a cell group location state and provided with stored context information for the mobile terminal (=see Fig.4, item 403 and 405),

the serving radio network controller being arranged to communicate with other radio network controllers via an Iur interface, comprising a means adapted to perform an information transfer of a multimedia service attach requesting message comprising the context information at a trigger event to all other radio network controller controlling at least one cell within the cell group of the mobile terminal and being potential drift radio network controllers (DRNCs) for the mobile terminal (=see Fig.4, items 401, 403-407).

Regarding **claim 52**, *Choi*'342 discloses a radio network controller according to claim 51, wherein the context information comprises the identity of the joined multimedia service, the identity of the cell group, the temporary identity of the mobile terminal within the network, and the identity of the mobile terminal (=see page 9, lines 15-19).

Regarding **claim 53**, *Choi*'342 discloses a radio network controller according to claim 51, further comprising means adapted to send a multimedia session detach requesting message to all potential DRNCs in the previous cell group upon receiving a cell group updating message from the mobile terminal and the new cell group only consist of cells controlled by new RNCs (=see page 9, lines 15-19).

Regarding **claim 60**, *Choi*'342 discloses a radio network controller according to claim 51, wherein the multimedia service is a Multimedia Broadcasting/Multicasting Service (MBMS), according to the 3GPP standard (=see page 8, lines 7-9).

Regarding **claim 61**, *Choi*'342 discloses a radio network controller according to claim 51, wherein the multimedia service attach requesting message is an MBMS ATTACH REQUEST, according to the 3GPP standard (=see page 8, lines 20-23, wherein the "MBMS Connection request" reads on the MBMS ATTACH REQUEST).

Regarding **claim 62**, *Choi*'342 discloses a radio network controller in a radio access network being a potential drift radio network controller (DRNC) for a multimedia service joined mobile terminal in a cell group location state, the radio network controller arranged to communicate with other radio network controllers via an lur interface (=see Fig.4, wherein it is understood that the lur interface utilized), comprising:

means adapted to receive an information transfer of a multimedia service attach requesting message comprising context information for a mobile terminal from a radio network controller functioning as a serving radio network controller (SRNC) adapted to perform an information transfer of a multimedia service attach requesting message comprising the context information at a trigger event to all other radio network controllers controlling at least one cell within the cell group of the mobile terminal and being potential drift radio network controllers (DRNCs) for the mobile terminal (=see Fig.4, wherein it is understood that to conduct said workflow/exchange that the means are taught); and

means adapted to create and store context information for the mobile terminal using the received message (=see Fig.4, wherein disclosed workflow diagram reads on means to product outcome).

Regarding **claim 63**, *Choi*'342 discloses a radio network controller according to claim 62, wherein the context information comprises the identity of the joined multimedia

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service, the identity of the cell group, the temporary identity of the mobile terminal within the network, and the identity of the mobile terminal (=see page 9, lines 15-19).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 36, 41, and 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Choi*'342 in view of *Choi et al* (2004/0180675 A1) (hereinafter *Choi*'675).

Regarding **claim 36**, *Choi*'342 discloses a method according to claim 34, but does not disclose clearly: wherein the SRNC and the potential DRNCs will send a multimedia session start notification based on the transferred context information when a multimedia session start notification is received from a core network.

However, in another disclosure, *Choi*'675 does teach: wherein the SRNC and the potential DRNCs will send a multimedia session start notification based on the transferred context information when a multimedia session start notification is received from a core network (=see Fig.3, Fig.4, and Fig.8, wherein item 809 reads on start notification).

Therefore, it would have been obvious to one of ordinary skills in the art, at the time of the invention, to have combined the two teachings of *Choi*'342 and *Choi*'675 to assure that all UEs receive paging messages, as stated by *Choi*'675 (=see par.[0042]).

Regarding **claim 64**, *Choi*'342 discloses a radio network controller according to claim 62, but does not clearly teach: wherein the means adapted to send a multimedia service session start notification to the mobile terminal based on the stored context information when a multimedia session start notification is received from a core network.

However, in another disclosure, *Choi*'675 does teach: wherein the means adapted to send a multimedia service session start notification to the mobile terminal based on the stored context information when a multimedia session start notification is received from a core network (=see Fig.3, Fig.4, and Fig.8, wherein item 809 reads on start notification).

Therefore, it would have been obvious to one of ordinary skills in the art, at the time of the invention, to have combined the two teachings of *Choi*'342 and *Choi*'675 to assure that all UEs receive paging messages, as stated by *Choi*'675 (=see par.[0042]).

Regarding **claims 41 and 65**, *Choi*'342 discloses a method according to claim 34, but does not clearly teach: wherein each of the potential DRNCs create and store a multimedia service context in case no other multimedia service joined mobile terminal is located in the cells controlled by each potential DRNC.

However, in another disclosure, *Choi*'675 does teach: wherein each of the potential DRNCs create and store a multimedia service context in case no other multimedia service joined mobile terminal is located in the cells controlled by each

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potential DRNC (=see Fig.12, item 1206, wherein it is understood that the context is used to create and store in view of remaining items in the said figure).

Therefore, it would have been obvious to one of ordinary skills in the art, at the time of the invention, to have combined the two teachings of *Choi*'342 and *Choi*'675 to assure that all UEs receive paging messages, as stated by *Choi*'675 (=see par.[0042]).

Regarding **claim 66**, the combined teachings of *Choi*'342 and *Choi*'675 discloses a radio network controller according to claim 65, and *Choi*'342 further teaches wherein the multimedia service context comprises the identity of the multimedia service and the temporary identity of the mobile terminal within the radio network (=see page 9, lines 23-26).

5. Claims 43-48, and 54-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Choi*'342 in view of *Lee et al* (2005/0041610 A1) (hereinafter *Lee*).

Regarding **claims 43 and 54**, *Choi*'342 discloses a method according to claim 34, but does not disclose clearly: further comprising the step of performing a counting procedure for each cell before a PTM/PTP decision by radio network controllers functioning as Controlling Radio Network Controllers (CRNCs).

However, in the same field of endeavor, *Lee* does teach: further comprising the step of performing a counting procedure for each cell before a PTM/PTP decision by radio network controllers functioning as Controlling Radio Network Controllers (CRNCs) (=see Fig.4 and par.[0054], wherein the "RNC" is the diagram reads on the CRNC since it is clear that it is the controlling RNC).

Therefore, it would have been obvious to one of ordinary skills in the art, at the time of the invention, to have combined the two teachings of *Choi*'342 and *Lee*, to obtain the accurate counting as disclosed in *Lee* (=see par.[0032]).

Regarding **claims 44 and 55**, the combined teachings of *Choi*'342 and *Lee* discloses a method according to claim 43, and *Lee* further teaches wherein the counting procedure step is performed by paging each mobile terminal in the cell group location state individually by means of the stored context information (=see par.[0078]).

Regarding **claims 45 and 56**, the combined teachings of *Choi*'342 and *Lee* discloses a method according to claim 43, and *Lee* further teaches wherein the counting procedure step is performed by including a cell group location specific paging information comprising a probability factor in a broadcasted multimedia service session start notification (=see par.[0077] and par.[0078]).

Regarding **claims 46 and 57**, the combined teachings of *Choi*'342 and *Lee* discloses a method according to claim 43, and *Lee* further teaches wherein the counting procedure step is performed by estimating a probability factor for the mobile terminals of each cell (=see par.[0090]).

Regarding **claims 47 and 58**, *Choi*'342 discloses a method according to claim 34, but does not teach: wherein the first cell group consists of a UTRAN Registration Area (URA) according to the 3GPP standard.

However, in the same field of endeavor, *Lee* does teach: wherein the first cell group consists of a UTRAN Registration Area (URA) according to the 3GPP standard (=see par.[0080]).

Therefore, it would have been obvious to one of ordinary skills in the art, at the time of the invention, to have combined the two teachings of *Choi*'342 and *Lee*, to obtain the accurate counting as disclosed in *Lee* (=see par.[0032]).

Regarding **claims 48 and 59**, *Choi*'342 discloses a method according to claim 34, but does not teach: wherein the cell group location state is a URA_PCH state according to the 3GPP standard.

However, in the same field of endeavor, *Lee* does teach: wherein the cell group location state is a URA_PCH state according to the 3GPP standard (=see par.[0080]).

Therefore, it would have been obvious to one of ordinary skills in the art, at the time of the invention, to have combined the two teachings of *Choi*'342 and *Lee*, to obtain the accurate counting as disclosed in *Lee* (=see par.[0032]).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN B. BYRD JR. whose telephone number is (571)270-7463. The Examiner can normally be reached on M-F, 7:30am - 5:00pm, EST.

The supervisor, Charles Appiah, can be reached on 571-272-7904, if you are unable to resolve the matter with the assigned Examiner. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/JOHN B BYRD JR./
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617